

REMARKS

Upon entry of the amendments herein, claims 32-47 remain pending in the application. Claims 32, 35-37, 40-42 and 44 have been amended herein. No new matter has been introduced by any of these amendments.

When Applicants submitted their May 14, 2003 Supplemental Amendment after Final Rejection, it was their understanding, in light of discussions between their agent and the Examiner, that all issues had been resolved and that their response would lead to allowance of the application. However, the Examiner instead issued a detailed new Office Action raising a number of new issues. During the course of the subsequent telephone discussions between the Examiner and Applicants' agent, the Examiner came to acknowledge in nearly every instance the persuasiveness of the oral arguments made against the new rejections and to acknowledge that these issues need not have been raised in the first place. During the most recent discussion, on September 4, 2003, the Examiner indicated that only two issues remained. Per oral agreement between the Examiner and Applicants' agent, these two are the only issues raised in the most recent Action that are addressed below.

The first issue remaining is the Examiner's assertion that the phrase "consisting essentially of" in claims 37, 42 and 44 is open-ended and that the metes and bounds of this phrase are not known. The Examiner's attention is drawn to MPEP §2111.03. Therein, it is stated that "[T]he transitional phrase 'consisting essentially of' limits the scope of a claim to the specified materials or steps 'and those that do not materially affect the basic and novel characteristic(s)' of the claimed invention. *In re Herz*, 537 F.2d 549, 551-52, 190 USPQ 461, 463 (CCPA 1976)." Thus, the "metes and bounds" of the essential elements of the invention are clear when this transitional phrase is used. This can be contrasted to what MPEP §2111.03 says about the transitional term "comprising." Said term "is inclusive or open-ended and does not exclude additional, unrecited elements or method steps." This rejection should be withdrawn, and withdrawal is respectfully requested.

The second remaining issue is the scope conveyed by the phrase "functionally equivalent modified form." In particular, the remaining issue arises from the Examiner's contention that the "forms" encompassed by this language can include molecules with non-naturally occurring bases and chemically modified bases. During the recent discussions, the Examiner acknowledged that the "at least 95% homologous" language also found in the

rejected claims connotes molecules derived by deletion, addition and/or substitution of bases (but not by introduction of non-naturally occurring or chemically modified bases) in the original molecule and that such a scope is enabled by the instant disclosure. In fact, Applicants wish to emphasize that the claims in question recite that "the functionally equivalent modified form . . . is at least 95% homologous to" the specifically disclosed sequences.

With respect to molecules derived from the original by introduction of non-naturally occurring bases and/or chemically modified bases, the Examiner himself has indicated in the outstanding Office Action (see, e.g., page 4, lines 16-18) that replacement of the word "form" with the word "variant" would be remedial. Accordingly, Applicants have made this amendment to the claims; certainly, it cannot be said that new matter is introduced by this amendment. This amendment, in combination with the Examiner's acknowledgement of the appropriateness and meaning of the percent homology language in the claims, renders moots this rejection.

Notwithstanding the fact that the Examiner indicated that all other grounds of rejection set forth in the May 20, 2003 Office Action were rendered moot by the subsequent telephone discussions with Applicants' agent, some other amendments have

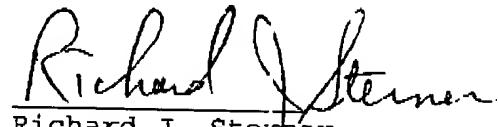
been made to the claims in the interest of clarity. In particular, the claims have been amended in response to the Examiner's objections set forth in sections 3A and 3B of the Action. Support for the amendments made in response to the Examiner's objection under 37 CFR 1.75(c) can be found, for example, on page 9, lines 17-22 of the instant specification.

In view of the amendments and arguments set forth herein, the remaining issues have been properly addressed, and the application is in condition for allowance. Allowance of the application with pending claims 32-47 is respectfully requested. The Examiner has indicated that, should any other matters require attention prior to allowance, he will directly contact Applicants' agent prior to issuance of any formal reply to this communication.

The Commissioner is hereby authorized to charge any fees which may be due in connection with this communication to Deposit Account No. 23-1703.

Dated: September 15, 2003

Respectfully submitted,

  
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